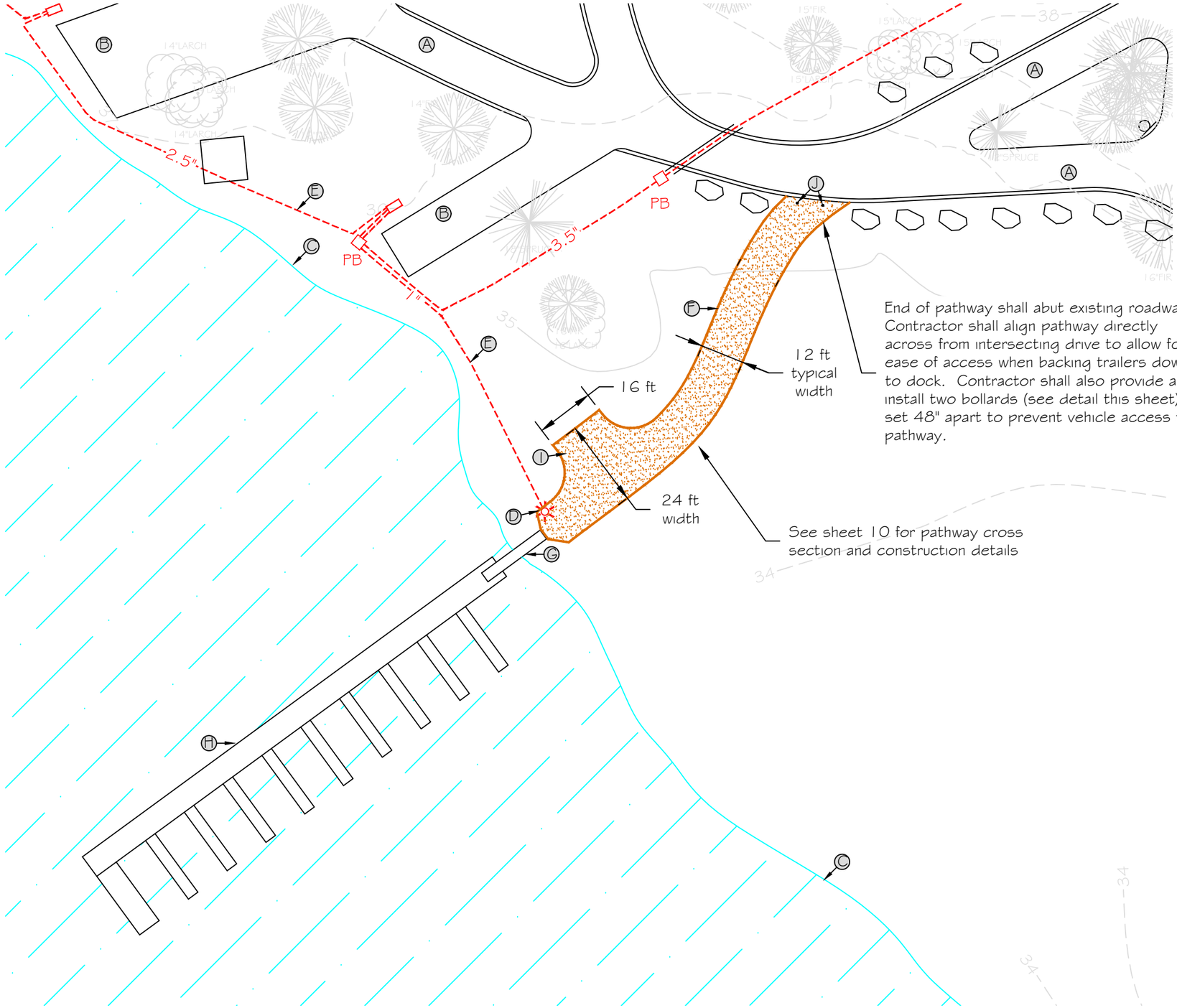


Keyed Notes for Siteplan:

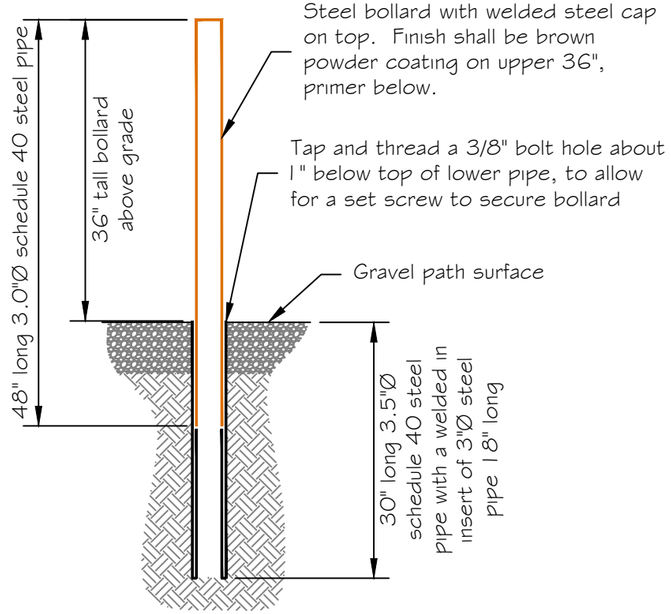
A. Existing Asphalt Campground Roadway
B. Existing Campsite Asphalt Pad
C. Existing Shoreline

D. Proposed Bollard Lighting
E. Proposed Electrical Conduit
F. Proposed pathway, 1700 sq ft
G. Proposed 20 ft aluminum gangway
H. Proposed floating dock
I. Proposed turning pad
J. Proposed bollards

Scale:

0 30 60

Removable Steel Bollard Detail
Not to Scale



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Dock & Pathway Siteplan

Logan State Park Electrification and Dock Project

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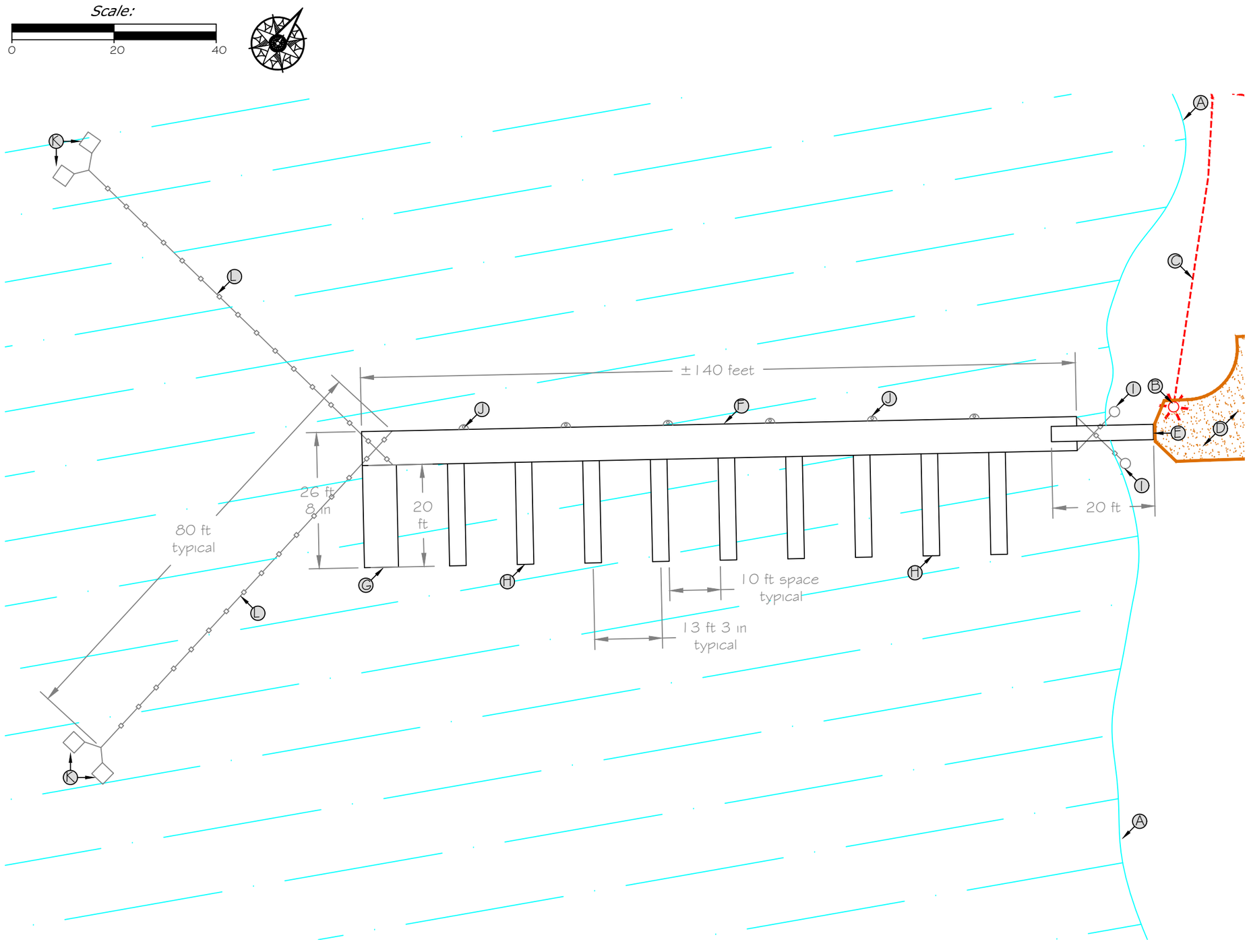

Keyed Notes for Siteplan:

A. Existing Shoreline

B. Proposed Bollard Lighting
C. Proposed Underground Electrical Conduit
D. Proposed Pathway
E. Proposed 20 ft Aluminum Gangway With Hand Railing
F. Proposed 80" Wide Floating Dock
G. Proposed 80" Wide Dock End Section
H. Proposed 40" Wide Finger Dock, typical

I. Proposed shore anchor pin with crossed chain to end of dock, two typical on NE end of dock
J. Proposed 2" galvanized pipe pile support to lakebed for stabilization, typical every 20 feet
K. Proposed double 700 pound concrete anchors
L. Proposed galvanized anchor chain

Anchorage Note:

Given the shallow depth of available water along the length of the dock, the anchor chains installed on the SW end shall be provided with "snubber" weights located under the dock. This is to assure maximum usable water depth to boat props and swimmers.

General Floating Dock Specifications:

The floating dock shall meet the following nominal specifications and minimum accessories:

- Dock Minimum Length = 140 feet
- Dock Minimum Width = 80 inches
- Dock Minimum Depth (Thickness) = 15 inches
- Dock Minimum End Section Width = 80 inches
- Dock Minimum End Section Length = 20 feet
- Dock Minimum Finger Width = 40 inches
- Dock Minimum Finger Length = 20 feet

- Dock SW End Weight Anchors = 1400 lbs each
- Dock SW End Weight Anchors = Two
- Dock Minimum End Chains = $\frac{5}{16}$" & 80 ft each
- Dock Minimum End Chains = Two
- Dock Minimum Shore Pins = 2
- Dock Minimum Shore Chains = $\frac{5}{16}$" & 20 ft each
- Dock Minimum Shore Chains = Two

- Gangway Minimum Length = 20 feet
- Gangway Minimum Width = 36 inches
- Gangway Material = Aluminum

- Dock Boat Tie-Up Cleats = 73 minimum
- Dock Boat Fenders = 16 minimum
- Dock Corner Gussets = 19 minimum
- Dock Stabilization Piles = 6 minimum

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Dock Details

Logan State Park Electrification and Dock Project

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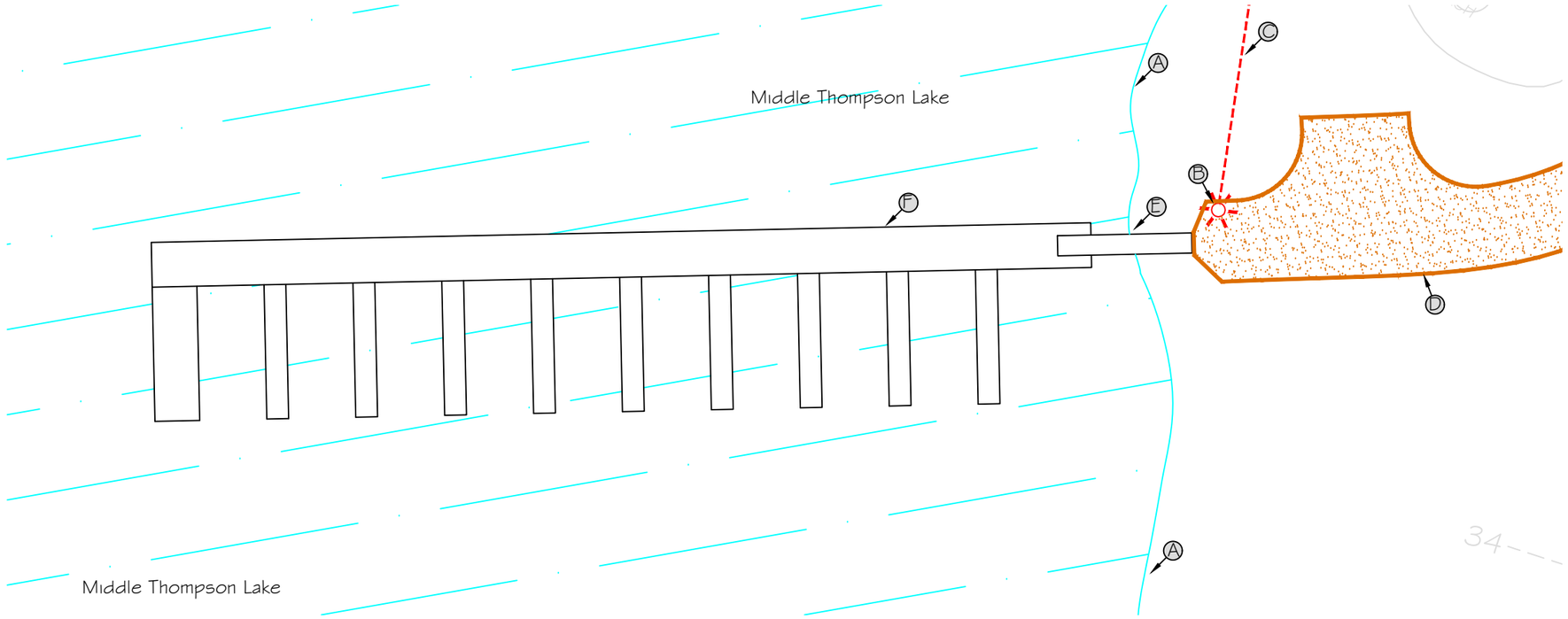
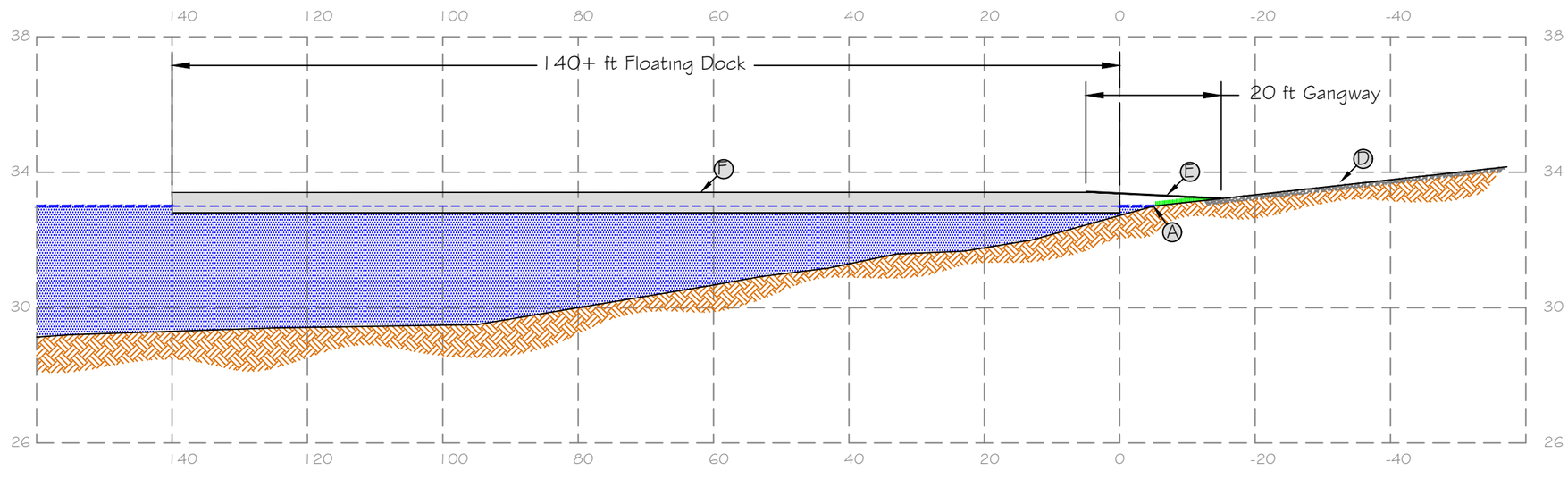
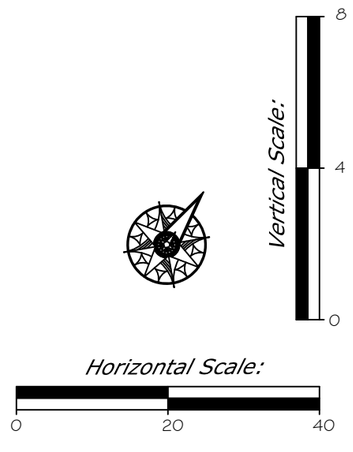


Keyed Notes for Siteplan:

A. Existing Shoreline & Ordinary High Water Mark

B. Proposed Bollard Lighting
C. Proposed Electrical Conduit
D. Proposed Pathway
E. Proposed Aluminum Gangway
F. Proposed floating dock





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Proposed Dock Profile

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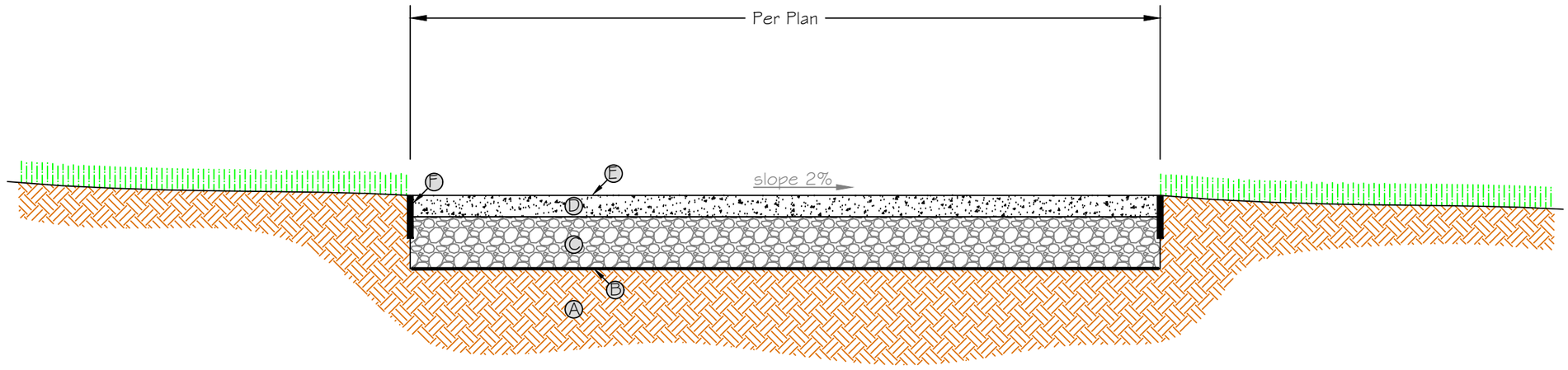
Gravel Surfaced Pathway Detail

Not to Scale



Pathway Construction Notes:

A. Subgrade: Existing subgrade materials shall be scarified to a depth of 8", water conditioned (as required) and re-compacted to improve subgrade uniformity and support. Compaction shall be a minimum of 95% of maximum laboratory dry density per AASHTO T99 or ASTM D698.
B. Geotextile: Optional geotextile, see note below.
C. Crushed Base Course: Base course material shall be crushed, minimum 10" thickness of 1.5" minus material meeting the applicable gradation of the MPWSS table found in section 02234 part 2.4.A. This material shall be placed in lifts not exceeding 6" and shall be compacted to a minimum of 95% of maximum laboratory dry density per AASHTO T99.
D. Surface Course: Surface course material shall be a crushed, minimum 3" thickness of 0.75" minus material, well compacted meeting applicable gradation of MPWSS.
E. Final Grading: Surface of pathway shall not be vary more than 3/4" higher, and no lower, than adjacent lawn. Surface shall be cross-sloped to drain easterly with a standard 1/4 inch per foot or 2% grade.
F. Edging: Install 5" deep HDPE edging to sufficient depth that surface drainage off of pathway will not be blocked. Color shall be dark earth tone or black.

Additional Notes:

1. Minimum Standards: All work shall meet the minimum standards established in the current edition of the Montana Public Works Standard Specification (MPWSS). Some specifications in this detail or other project plan sheets and attachments may exceed the MPWSS.
2. Earthwork: To prepare for pathway construction all topsoil, root zone and any soft, frozen or otherwise unsuitable materials shall be removed.
3. Geotextile: If native subgrade material is found to contain significant amounts of clay or silt, engineer may direct contractor to install a geotextile. The geotextile shall be MIRIFI 500x or approved equal.
4. Surface Course: Contractor shall submit a surface course material sample and gradation to engineer for approval prior to installation.

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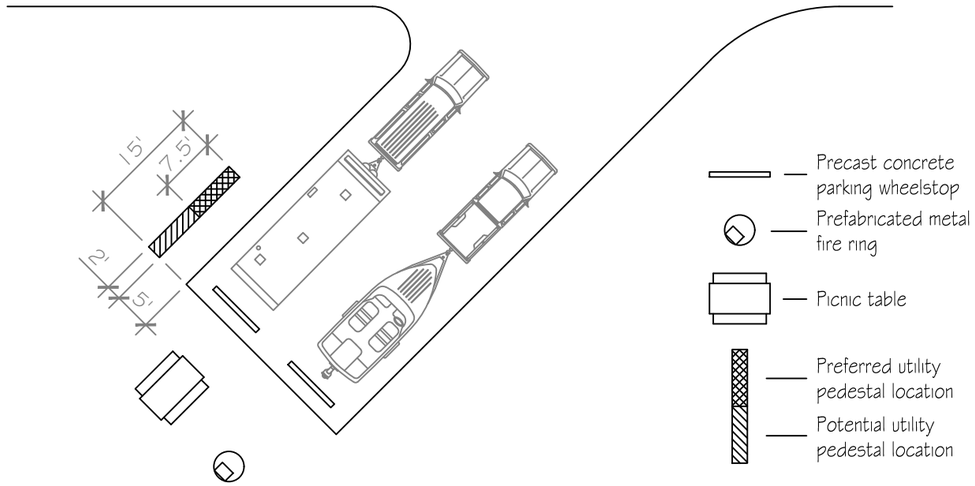
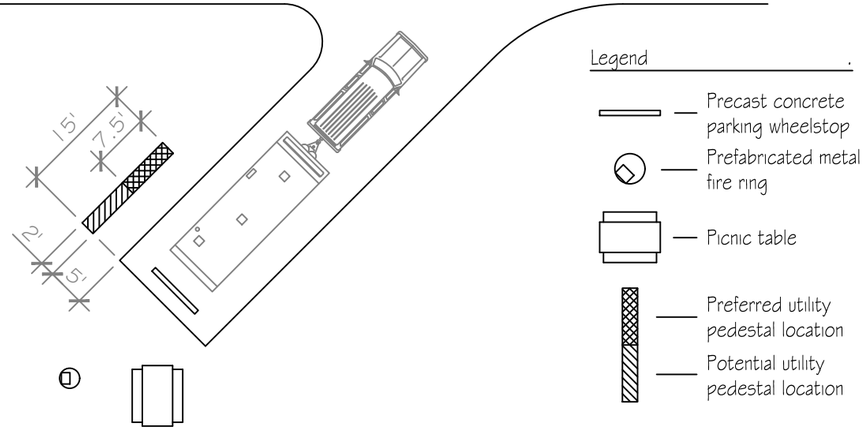
Typical Electrical Pedestal Location Examples

Campground Loop Traffic Flow



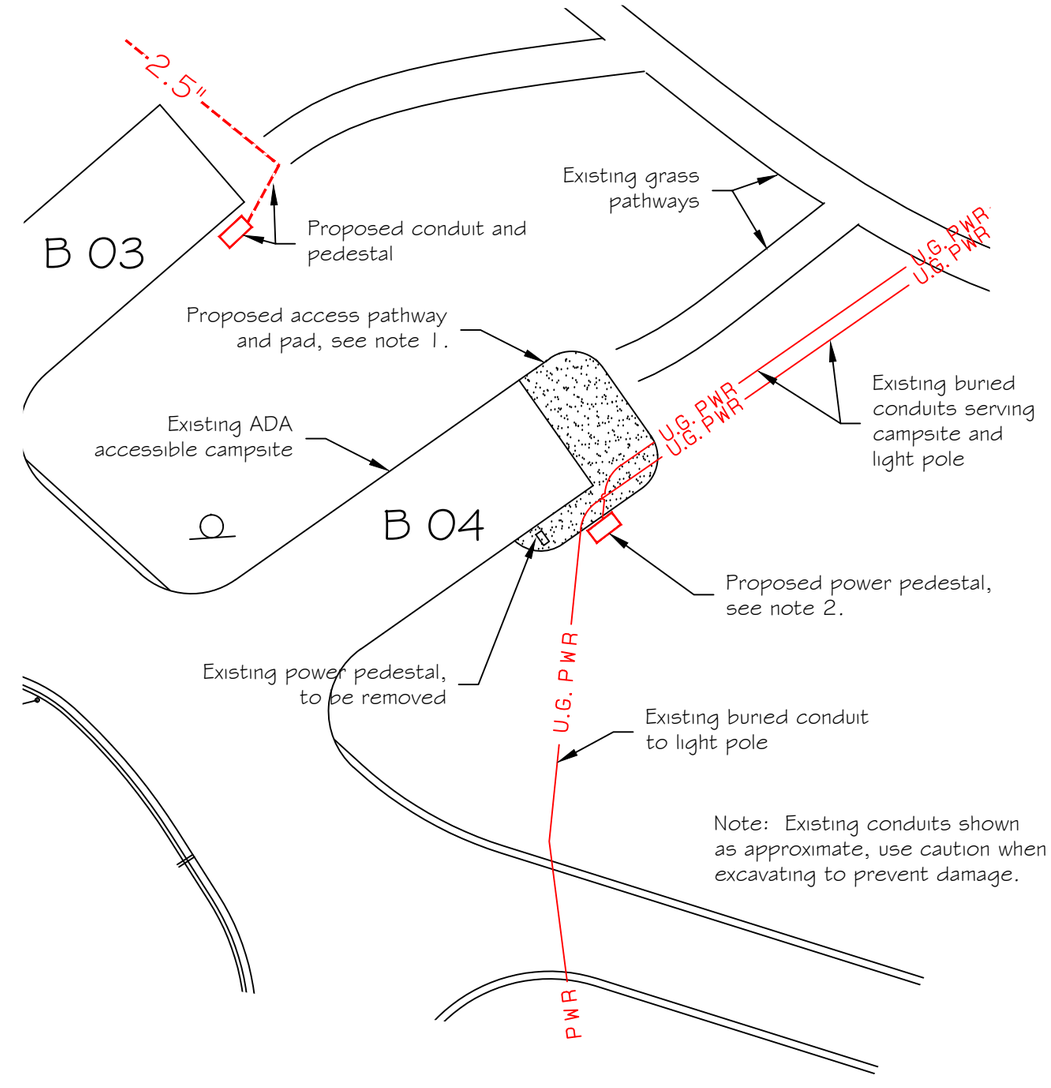
Campground Loop Traffic Flow



Campsite B-04 Improvements

Campsite B-04 Construction Notes:

1. Access Pad / Pathway: Contractor shall construct an accessible pathway around the end of the campsite to allow for access to plug in the RV unit. The pad shall extend at least 10 feet beyond the end of the asphalt pad and fill in the 5 feet between the asphalt and the new power pedestal. Contractor shall clear and grub existing topsoil and vegetation, then fill up to asphalt pad level with $\frac{3}{4}$" crushed compacted MPWSS material.
2. Power Pedestal: The campsite has an existing power pedestal that has suffered regular damage from backing vehicles. The intent is to remove the old unit, relocate the end of the conduit / power feed, and install a new pedestal in a better location.



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Pededstal Location & ADA Pad Details

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Keyed Notes:

A. Proposed Meter, approximately 12" wide by 20" high x 5" deep
B. Proposed Sub-Meter, approximately 12" wide by 10" high x 4" deep
C. Proposed CT Enclosure, approximately 36" wide x 48" high x 12" deep
D. Proposed MDP, approximately 24" wide x 73.5" high x 13" deep
E. Existing Panel A, remove and relocate to backside

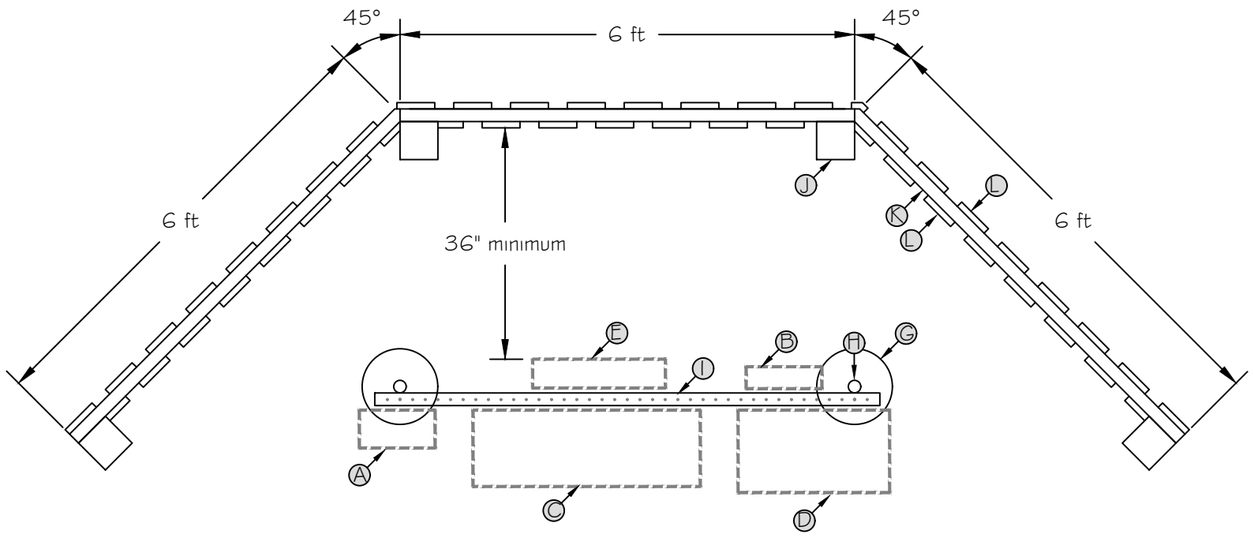
F. Finished grade

G. Proposed Foundation Piers, set 2" above finished grade, tops sloped to drain from center toward edges, see note this page for construction specifications
H. Proposed Upright 2" Schedule 40 Steel Pipe, 8 feet in length with 24" embedment in foundation
I. Proposed Cross Piece 2" Unistrut, 6.5 feet in length, install as many as required to mount panels

J. Proposed 6" x 6" x 8 ft treated wooden post
K. Proposed 2" x 4" x 6 ft treated wooden framing members
L. Proposed $\frac{5}{8}$" x 6" x 6 ft wooden fence pickets, painted brown

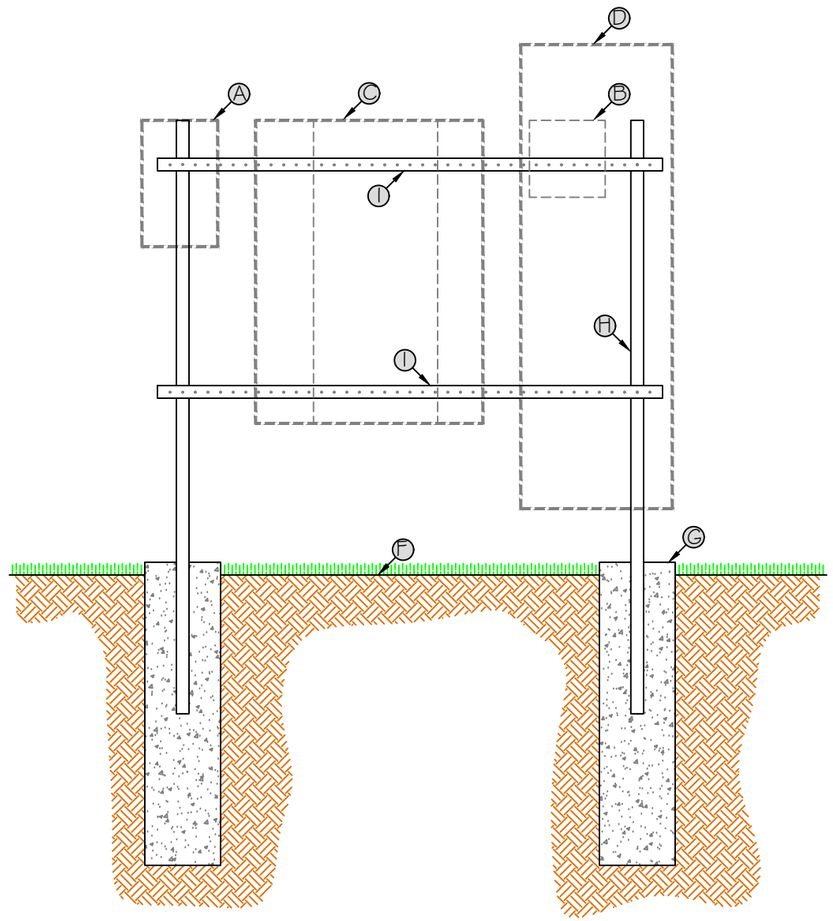
Concrete Piers Note: Piers are 12" diameter by 48" deep each, composed of 3,000 psi concrete. Vertical reinforcing in the piers will consist of four vertical #4 bars spaced equally around the pier 3" from the edge. Horizontal reinforcing shall consist of at least three hoops of #3 bar set at depth of 2", 8" and 14" below the top of the pier.

Steel Upright Note: Each pier shall have an eight foot long 2"Ø schedule 40 steel pipe, embedded 2 feet into the concrete pier. Pipe shall be powder coated brown.



Service Assembly Support Structure and Screen Detail (Plan View):
Scale: $\frac{1}{2}$" = 1 foot

Service Assembly Support Structure (Elevation View):
Scale: $\frac{1}{2}$" = 1 foot



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Panel Support Structure

Logan State Park Electrification and Dock Project

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